

**Tribal-EPA Consultation Opportunity: Minnesota Pollution Control Agency Request  
for Approval of a Variance from Minnesota's Water Quality Standards for Agricultural  
and Industrial Uses for Hardness, Bicarbonate, Dissolved Salts, and Specific Conductance  
for Mesabi Nugget Delaware LLC**

**Date: NOV 15 2012**

Overview

Mesabi Nugget Delaware LLC produces iron nuggets from iron ore concentrate, coal, fluxes and binders. The iron nuggets are used in making steel. Mesabi Nugget Delaware LLC discharges treated effluent to Second Creek in St. Louis County, Minnesota. Second Creek is a tributary to the Partridge River, which is a tributary to the Saint Louis River, which discharges to Lake Superior. The affected criterion for hardness is to protect Minnesota's 3C Industrial Use. The remainder of the affected criteria are to protect Minnesota's 4A Agricultural Use.

The Minnesota Pollution Control Agency (MPCA) submitted the variance request to its Citizens' Board with a recommendation that the variance request be granted. The Citizen's Board approved granting the variance on October 23, 2012. The variance is now before the U.S. Environmental Protection Agency for review and approval under section 303(c) of the Clean Water Act (CWA).

This consultation opportunity is a continuation of ongoing discussions regarding this variance between EPA and Tribes.

Background

Water quality standards consist of designated uses, water quality criteria to protect the designated uses, and an antidegradation policy and implementation procedures. Occasionally, states impose water quality-based effluent limits (WQBELs) in National Pollutant Discharge Elimination System (NPDES) permits that the NPDES permit holders are unable to achieve. Under the CWA, permittees may seek relief from WQBELs by applying for a variance from water quality standards where states' water quality standards allow for variances.

A variance is a temporary change to a waterbody's designated use and the associated water quality criteria. Variances must be based on a demonstration showing the standards are not attainable for one or more of the reasons found in the federal regulations at 40 CFR 131.10(g). One of these reasons that is often cited as the basis for a variance is that the standard "would result in substantial and widespread economic and social impact" to the community. Although approval of a variance may provide temporary relief to an individual discharger, the highest attainable designated use and associated criteria must be preserved for the waterbody overall during the variance period, and approval of a variance is contingent on a number of conditions being met during the duration of the variance, such as source reduction measures. Once a state reviews and approves a variance request, EPA must also review and approve the request for the

variance to become effective. More information can be found in EPA's Water Quality Standards Handbook at <http://water.epa.gov/scitech/swguidance/standards/handbook/chapter05.cfm#section3>.

### Basis

Minnesota's water quality standards at 7050.0190 allow for MPCA to grant variances from the Minnesota water quality standards when the following circumstances are met:

In any case where, upon application of the responsible person or persons, the agency finds that by reason of exceptional circumstances the strict enforcement of any provision of these standards would cause undue hardship, that disposal of the sewage, industrial waste, or other waste is necessary for the public health, safety, or welfare; and that strict conformity with the standards would be unreasonable, impractical, or not feasible under the circumstances; the agency in its discretion may grant a variance there from upon such conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purposes of these classifications and standards and the intent of the applicable state and federal laws. The United States Environmental Protection Agency shall be advised of any variances that may be issued under this part together with information as to the need therefore.

In the case of the Mesabi Nugget Delaware LLC variance, MPCA's Citizens' Board concurred with the recommendation of MPCA staff that the information provided by Mesabi Nugget Delaware LLC satisfied the required demonstrations for granting a variance under Minnesota's rules.

### Environmental Impact

Granting this variance is expected to result in water quality in the affected waters that may not support Minnesota's Class 3C Industrial and 4A Agriculture uses. Mesabi Nugget Delaware LLC provided information to MPCA asserting that, with the exception of the existing use of the waters for wild rice production under class 4A, the industrial and agriculture uses are not existing uses for the affected waters. Mesabi Nugget Delaware LLC is not seeking a variance from the sulfate criterion to protect waters used for the production of wild rice under Class 4A.

### Context

Under the CWA, states and tribes must submit new and revised water quality standards to the EPA for review and approval or disapproval. A variance is considered a temporary revision to a water quality standard, thus requiring EPA approval before it may become effective for CWA purposes. Disapproval is required when a new or revised water quality standard is not consistent with the requirements of the CWA and/or the federal water quality standards regulations. Approval of the Mesabi Nugget Delaware LLC variance request by EPA would mean that the facility may discharge treated wastewater with concentrations of hardness, bicarbonate, dissolved salts, and specific conductance greater than the limits that would be necessary to comply with criteria specified in Minnesota's water quality standards. The variance allows Mesabi Nugget

Delaware LLC to discharge the variance parameters at concentrations in excess of the limits that would be necessary to ensure compliance with the unvaried water quality standards. Under the variance, the variance parameters would be discharged at or below the following concentrations:

<u>Parameter</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>
Hardness	863 mg/L	831 mg/L
Total Dissolved Salts	1228 mg/L	1160 mg/L
Specific Conductance	1965 umhos/cm	1889 umhos/cm
Bicarbonate	378 mg/L	363 mg/L

The variance and the proposed permit implementing the variance also include requirements for Mesabi Nugget Delaware LLC to conduct short-term and long-term investigations to identify ways to improve the quality of the effluent.

#### Status

EPA is currently reviewing the Mesabi Nugget Delaware LLC variance proposal, with a review deadline of December 15, 2012.

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